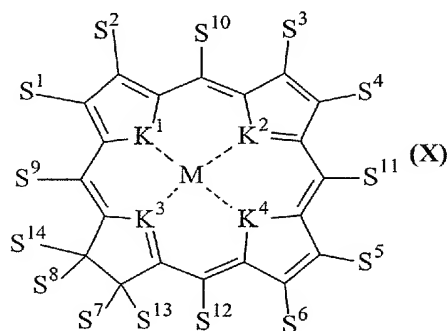


**Amendments to the Claims :**

This listing of the claims will replace all prior versions and listings of claims in the present application:

1-22 (cancelled)

23 (currently amended). A *trans* substituted oxochlorin compound of Formula X:



wherein:

M is a metal selected from the group consisting of Zn, Mg, Pt, Pd, Sn and Al, or M is absent;

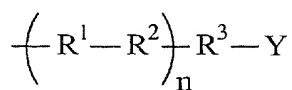
K<sup>1</sup>, K<sup>2</sup>, K<sup>3</sup>, and K<sup>4</sup> are hetero atoms independently selected from the group consisting of N, O, S, Se, Te, and CH;

S<sup>1</sup>, S<sup>2</sup>, S<sup>3</sup>, S<sup>4</sup>, S<sup>5</sup>, S<sup>6</sup>, S<sup>8</sup>, S<sup>9</sup>, S<sup>10</sup>, S<sup>11</sup>, S<sup>12</sup>, and S<sup>14</sup> are independently selected from the group consisting of H, aryl, alkyl, cycloalkyl, spiroalkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl;

wherein S<sup>7</sup> and S<sup>13</sup> are together =O;

and wherein either (i) S<sup>1</sup> and S<sup>5</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>, (ii) S<sup>2</sup> and S<sup>6</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>, (iii) S<sup>10</sup> and S<sup>12</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>, or (iv) S<sup>9</sup> and S<sup>11</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>; and

Q<sup>1</sup> and Q<sup>2</sup> are independently selected linking groups of the formula:



wherein:

n is from 0 or 1 to 5 or 10;

R<sup>3</sup> may be present or absent;

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> are each independently selected from the group consisting of ethene, ethyne, aryl, and heteroaryl groups, which aryl and heteroaryl groups may be unsubstituted or substituted one or more times with H, aryl, phenyl, cycloalkyl, alkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl; and

Y is a protected or unprotected reactive substituent selected from the group consisting of hydroxy, thio, seleno, telluro, ester, carboxylic acid, boronic acid, phenol, silane, sulfonic acid, phosphonic acid, alkylthiol, formyl, halo, alkenyl, alkynyl, haloalkyl, dialkyl phosphonate, alkyl sulfonate, acetylacetone, and dialkyl boronate groups.

24 (original). The compound according to claim 23, wherein S<sup>9</sup> and S<sup>11</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>.

25 (original). The compound according to claim 23, wherein S<sup>10</sup> and S<sup>12</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>.

26 (original). The compound according to claim 23, wherein neither S<sup>8</sup> nor S<sup>14</sup> is H.

27 (original). The compound according to claim 23, wherein M is present.

28 (original). The compound according to claim 23, wherein M is Zn or Mg.

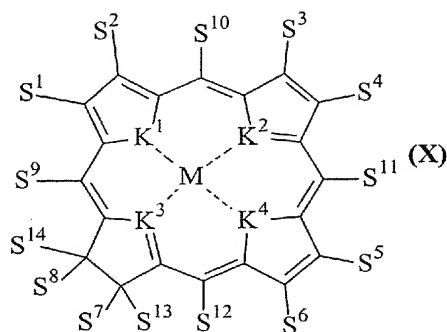
29 (cancelled).

30 (original). The compound according to claim 23, wherein K<sup>1</sup>, K<sup>2</sup>, K<sup>3</sup>, and K<sup>4</sup> are independently selected from the group consisting of N, O, S, and CH.

31 (original). The compound according to claim 23, wherein K<sup>1</sup>, K<sup>2</sup>, K<sup>3</sup>, and K<sup>4</sup> are all N.

32 (currently amended). The compound according to claim 23, wherein S<sup>4</sup>, S<sup>7</sup>, S<sup>8</sup>, S<sup>9</sup>, S<sup>10</sup>, S<sup>11</sup>, S<sup>12</sup>, S<sup>13</sup>, and S<sup>14</sup> are all alkyl.

33. (new). A *trans* substituted oxochlorin compound of Formula X:



wherein:

M is absent;

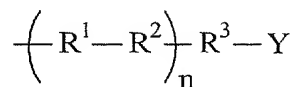
K<sup>1</sup>, K<sup>2</sup>, K<sup>3</sup>, and K<sup>4</sup> are hetero atoms independently selected from the group consisting of N, O, S, Se, Te, and CH;

S<sup>1</sup>, S<sup>2</sup>, S<sup>3</sup>, S<sup>4</sup>, S<sup>5</sup>, S<sup>6</sup>, S<sup>8</sup>, S<sup>9</sup>, S<sup>10</sup>, S<sup>11</sup>, S<sup>12</sup>, and S<sup>14</sup> are independently selected from the group consisting of H, aryl, alkyl, cycloalkyl, spiroalkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl;

wherein S<sup>7</sup> and S<sup>13</sup> are together =O;

and wherein either (i) S<sup>1</sup> and S<sup>5</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>, (ii) S<sup>2</sup> and S<sup>6</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>, (iii) S<sup>10</sup> and S<sup>12</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>, or (iv) S<sup>9</sup> and S<sup>11</sup> are *trans*-substituted linking groups Q<sup>1</sup> and Q<sup>2</sup>; and

Q<sup>1</sup> and Q<sup>2</sup> are independently selected linking groups of the formula:



wherein:

n is from 0 or 1 to 5 or 10;

R<sup>3</sup> may be present or absent;

R<sup>1</sup>, R<sup>2</sup>, and R<sup>3</sup> are each independently selected from the group consisting of ethene, ethyne, aryl, and heteroaryl groups, which aryl and heteroaryl groups may be unsubstituted or substituted one or more times with H, aryl, phenyl, cycloalkyl, alkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl; and

Y is a protected or unprotected reactive substituent selected from the group consisting of hydroxy, thio, seleno, telluro, ester, carboxylic acid, boronic acid, phenol, silane, sulfonic acid, phosphonic acid, alkylthiol, formyl, halo, alkenyl, alkynyl, haloalkyl, dialkyl phosphonate, alkyl sulfonate, acetylacetone, and dialkyl boronate groups.

34 (new). The compound according to claim 33, wherein  $S^9$  and  $S^{11}$  are *trans*-substituted linking groups  $Q^1$  and  $Q^2$ .

35 (new). The compound according to claim 33, wherein  $S^{10}$  and  $S^{12}$  are *trans*-substituted linking groups  $Q^1$  and  $Q^2$ .

36 (new). The compound according to claim 33, wherein neither  $S^8$  nor  $S^{14}$  is H.

37 (new). The compound according to claim 23, wherein  $K^1$ ,  $K^2$ ,  $K^3$ , and  $K^4$  are independently selected from the group consisting of N, O, S, and CH.

38 (new). The compound according to claim 23, wherein  $K^1$ ,  $K^2$ ,  $K^3$ , and  $K^4$  are all N.

39 (new). The compound according to claim 23, wherein  $S^4$ ,  $S^8$ ,  $S^9$ ,  $S^{10}$ ,  $S^{11}$ ,  $S^{12}$ , and  $S^{14}$  are all alkyl.